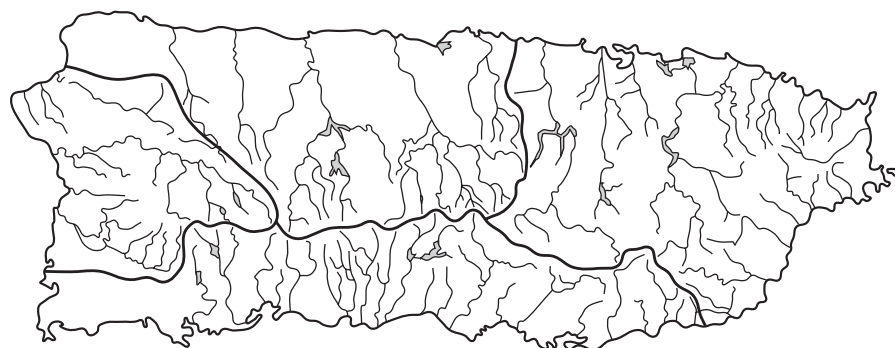


Puerto Rico



— Basin Boundaries
(USGS 6-Digit Hydrologic Unit)

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Surface Water Quality

In rivers and streams, 81% of the surveyed miles have good water quality that fully supports aquatic life uses, 1% partially support aquatic life uses, and 19% do not support aquatic life uses. Swimming is impaired in 21% of the surveyed rivers and streams. Bacteria, low dissolved oxygen, metals, inorganic chemicals, flow alteration, and nutrients are the most widespread problems in rivers and streams. In lakes, 60% of the surveyed acres fully support aquatic life uses, 5% partially

support these uses, and 36% do not support aquatic life uses. Swimming is impaired in 48% of the surveyed lake acres. Uses are impaired by bacteria and low dissolved oxygen concentrations.

Ninety-nine percent of the assessed estuarine waters fully support aquatic life and swimming uses. Land disposal of wastes, urban runoff, agriculture, municipal sewage treatment plants, and natural conditions are the most common sources of water quality degradation in rivers, lakes, and estuaries. Industrial and municipal discharges, spills, marinas, urban runoff, and land disposal of wastes also pollute beaches.

Ground Water Quality

Organic compounds, including dichloromethane, 1,1,2-trichloroethane, and toluene were detected below maximum contaminant levels in several wells. Four wells were closed due to bacterial contamination and high turbidity and two wells were shut down due to contamination from volatile organic compounds. The major sources of ground water contamination are septic tanks, livestock operations, agriculture, storage tanks, and landfills. Puerto Rico adopted ground water use classifications and water quality standards in 1990. In 1993, the Environmental Quality Board completed the ground water priority list that ranks critical areas for remediation and protection activities.

Programs to Restore Water Quality

Puerto Rico requires permits or certificates for ground water and surface water discharges, underground storage tanks, and livestock operations. Certificates require livestock operations to implement animal waste management systems and other best management practices. During the 1992-1993 reporting period, Puerto Rico issued 194 certificates for livestock operations; inspected 427 livestock operations; implemented 77 BMPs in priority watersheds; offered 15 conferences to educate the public about non-point source pollution and controls; and monitored the effectiveness of BMPs implemented at poultry, dairy, and hog farms.

Programs to Assess Water Quality

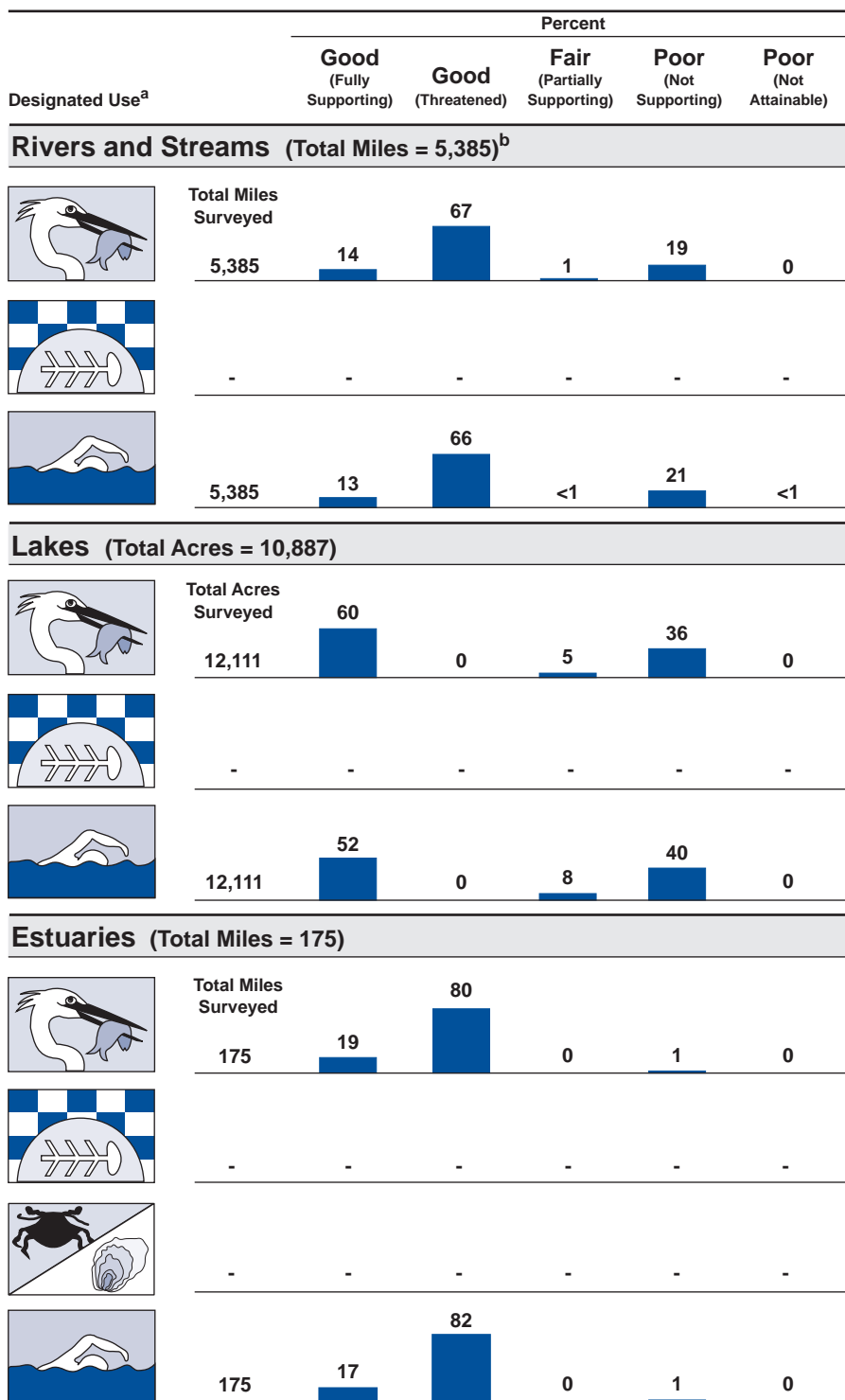
Under a cooperative agreement with the government of Puerto Rico, the USGS collects bimonthly samples at 57 fixed surface water monitoring stations. The samples are analyzed for dissolved oxygen, nutrients, bacteria, and conventional parameters. Twice a year, the samples are analyzed for metals and several toxic substances. Puerto Rico also maintains a Permanent Coastal Water Quality Network of 88 stations and the San Juan Beachfront Special Monitoring Network of 22 stations sampled monthly for bacterial contamination.

– Not reported in a quantifiable format or unknown.

^a A subset of Puerto Rico's designated uses appear in this figure. Refer to the Commonwealth's 305(b) report for a full description of the Commonwealth's uses.

^b Includes nonperennial streams that dry up and do not flow all year.

Individual Use Support in Puerto Rico



Note: Figures may not add to 100% due to rounding.